

Remarks

In response to the Non-Final Office Action mailed September 17, 2007 (hereinafter "Office Action"), claims 4, 10, and 14-16 have been amended, and claims 18 and 19 have been newly added. No claims have been cancelled. Therefore, claims 1-17 are pending. Support for the instant amendments is provided throughout the as-filed Specification. Thus, no new matter has been added. In view of the foregoing amendments and following comments, allowance of all the claims pending in the application is respectfully requested.

Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-4, 6, and 9-17 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,426,184 to Gao et al. ("Gao"). Claim 8 was rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Gao.

Applicant traverses these rejections because the relied upon portions of Gao do not disclose, teach, or suggest each and every aspect of the claimed invention.

II. Claims 1-10

For example, claim 1 recites, in part:

...the fluid processing cell is configured so that different areas of the substrate may be subjected to different fluid processes simultaneously or to a fluid process and a radiation exposure process simultaneously.

Page 2 of the Office Action alleges that Gao in Figs. 9A-9C and col. 27, lines 15-64 discloses that "the fluid processing cell is configured so that different areas of the substrate may be subjected to different fluid processes simultaneously or to a fluid process and a radiation exposure process

simultaneously.” Applicant strenuously disagrees. The relied upon portions of Gao appear to disclose spatially isolating the reaction wells 904a-904c with barriers 903, projecting light onto selected reaction wells 904a-904b in order to induce photo-active reaction, and flushing buffer zones 904d.

However, it does not appear that Gao’s reactor is configured “so that different areas of the substrate may be subjected to different fluid processes simultaneously.” In particular, Gao describes that “the buffer zones (labeled as 1006 in Fig. 10) are all interconnected.” In addition, Gao describes “branching channels 1011 made to distribute reagents evenly across the reactor.” Gao: col. 27, lines 48-52, and col. 28, lines 61-63. As a result, it appears that a fluid process would affect all the areas of the substrate.

In addition, the relied upon portion of Gao appears to be *silent* with regard to the aspect that “different areas of the substrate may be subjected to...a fluid process and a radiation exposure process simultaneously.” Rather, Gao appears to suggest that light is projected onto selected reaction wells prior to introducing fluid into the reactor because it is only after the selected reaction wells have been exposed to the light that the photolytic reactions can take place in light exposed reaction wells. Gao: col. 18, lines 56-67; col. 19, lines 1-13; col. 27, lines 22-38; and Fig. 1.

For *at least* the reason that Gao fails to disclose, teach, or suggest each and every aspect of the claimed invention, the rejection of claim 1 is improper and should be withdrawn. Claims 2-10 depend from independent claim 1 and therefore are also patentable over the relied upon portions of Gao for the reasons noted above with respect to claim 1, as well as for the features they recite individually.

II. Claims 11-13, and 16

Claim 11 recites, in part:

projecting the patterned beam of radiation onto a target portion of a layer of radiation-sensitive material; and

processing an area of the substrate by exposing it to a fluid that interacts therewith to effect a process while the substrate is held by the substrate table, wherein the area of the substrate does not include the target portion and the projecting and processing are carried out at least partially simultaneously.

Similarly, claim 16 recites, in part:

processing an area of said substrate by exposing it to a fluid that interacts therewith, the area of the substrate not including the target portion, wherein the projecting and the processing are carried out at least partially simultaneously.

Page 2 of the Office Action alleges that Gao discloses that element 806 is "a projection system to project the patterned beam onto a target portion," and that "processing an area of the substrate by exposing it to a fluid that interacts therewith to effect a process, wherein the area of the substrate does not include the target portion and the projecting and processing are carried out at least partially simultaneously" at col. 27, line 15-col. 29, line 21 and Figs. 9a-9c.

However, the relied upon portions of Gao are *silent* with regard to the aspect of "processing an area of the substrate by exposing it to a fluid that interacts therewith to effect a process, wherein the area of the substrate does not include the target portion and the projecting and processing are carried out at least partially simultaneously." Furthermore, it does not appear that Gao's reactor is capable of being configured for "processing an area of the substrate by exposing it to a fluid that interacts therewith to effect a process, wherein the area of the substrate does not include the target portion and the projecting and processing are carried out at least partially simultaneously" because any fluid processes of Gao would affect all the areas of the substrate.

For example, Gao describes that “the buffer zones (labeled as 1006 in Fig. 10) are all interconnected.” In addition, Gao describes “branching channels 1011 made to distribute reagents evenly across the reactor.” Gao: col. 28, lines 61-63. As a result, Gao’s reactor cannot process an area of the substrate not including the target portion when the projecting and processing are carried out at least partially simultaneously because if fluid was introduced into the reactor for processing during the projecting, both the target and non-target portions of the substrate would be exposed to the fluid.

For *at least* the reason that the relied upon portions of Gao fail to disclose, teach, or suggest each and every aspect of the claimed invention, the rejections of claims 11 and 16 are improper and should be withdrawn. Claims 12 and 13 depend from independent claim 11 and therefore are also patentable over the relied upon portions of Gao for the reasons noted above with respect to claim 11, as well as for the features they recite individually.

III. Claims 14, 15, and 17

Independent claim 14 has been amended solely in an effort to expedite prosecution. Claim 14 as amended is not disclosed, taught, or suggested by the relied upon portions of Gao.

Claim 14 as amended recites, in part:

a fluid processing cell in fluid communication with a surface of a substrate held on the substrate table, the fluid processing cell comprising a plurality of separate chambers configured to not have fluid communication with one another and to simultaneously receive a fluid, wherein each chamber is configured to have fluid communication with a different area of the substrate.

Page 2 of the Office Action alleges that reaction wells 904a-904c of Gao are "a plurality of separate chambers in fluid communication with respective areas of a substrate held on the substrate table." However, it does not appear that Gao's reactor comprise "a plurality of separate chambers configured to not have fluid communication with one another and to simultaneously receive a fluid."

In particular, Gao describes that "the buffer zones (labeled as 1006 in Fig. 10) are all interconnected." In addition, Gao describes "branching channels 1011 made to distribute reagents evenly across the reactor." Gao: col. 27, lines 48-52, and col. 28, lines 61-63. Accordingly, it appears that the reaction wells 904a-904c are all in fluid communication with one another. Furthermore, in the case where the cap 902 is pushed against the substrate 901 isolating individual reaction wells, Gao fails to describe that the "plurality of separate chambers [are] configured to not have fluid communication with one another and to simultaneously receive a fluid." Gao: col. 27, lines 15-34.

For *at least* the reason that Gao fails to disclose, teach, or suggest each and every aspect of the claimed invention, the rejection of claim 14 is improper and should be withdrawn. Claims 15 and 17 depend from independent claim 14 and therefore are also patentable over the relied upon portions of Gao for the reasons noted above with respect to claim 14, as well as for the features they recite individually.

Newly Added Claims

The relied upon portions of Gao fail to disclose, teach or suggest that each chamber includes a fluid inlet, as recited in claim 18; or a fluid outlet, as recited in claim 19.

Conclusion

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided

Date: November 30, 2007

Respectfully submitted,

By:


CHRISTOPHE F. LAIR

Registration No. 54,248

Pillsbury Winthrop Shaw Pittman LLP
P.O. Box 10500
McLean, Virginia 22102

Direct: (703) 770-7797
Main: (703) 770-7900
Fax: (703) 770-7901